

WE CLAIM:

1. A single crystal seed alloy composition comprising:

5       nickel; and,  
      in the proportion of 5 to 50 weight, % a further metal selected from the Transition Series of elements in Period VI of the Periodic Table of elements.

10       2. A single crystal seed alloy composition as claimed in claim 1, which alloy composition has a solidification temperature which is not less than 1300°C and not greater than 1400°C.

15       3. A single crystal seed alloy composition as claimed in claim 1 consisting essentially of nickel and the further metal.

20       4. A single crystal seed alloy composition as claimed in claim 1, wherein the further metal is present in the range 13 to 50 weight %.

25       5. A single crystal seed alloy composition as claimed in claim 1, wherein the alloy composition forms substantially no oxide layer when molten.

30       6. A single crystal seed alloy composition as claimed in claim 1, which alloy composition contains no aluminium.

      7. A single crystal seed alloy composition as claimed in claim 1, which alloy composition contains no titanium.

35       8. A single crystal seed alloy composition as claimed in claim 1, wherein the alloy has a

solidification temperature range not greater than 50C°.

9. A single crystal seed alloy composition as claimed in claim 8, wherein the alloy has a  
5 solidification temperature range not greater than 20C°

10. A single crystal seed alloy composition comprising:

nickel; and,

10 in the proportion of 5 to 50 weight, % a further metal selected from the Transition Series of elements in Period VI of the Periodic Table of elements,

wherein the alloy composition has a solidification temperature which is not less than 1300°C and not  
15 greater than 1400°C, and a solidification temperature range which is not greater than 20C°.

11. A single crystal seed alloy composition as claimed in claim 1, wherein the further metal comprises tungsten in the range 5 to 50 weight %.

12. A single crystal seed alloy composition as claimed in claim 11, wherein the tungsten is present in the range 13 to 40 weight %.

13. A single crystal seed alloy composition consisting essentially of:

nickel; and,

tungsten in the proportion of 13 to 40 weight %,

30 wherein the alloy composition has a solidification temperature which is not less than 1300°C and not greater than 1400°C, and a solidification temperature range which is not greater than 20C°.

14. A single crystal seed alloy composition as claimed in any one of claim 1, wherein the further

metal comprises tantalum in the range 5 to 50 weight %.

15. A single crystal seed alloy composition as  
claimed in claim 14, wherein the tantalum is present in  
5 the range 13 to 50 weight %.

16. A single crystal seed alloy composition as  
claimed in claim 15, wherein the tantalum is present in  
10 the range 20 to 45 weight %.

17. A single crystal seed alloy composition as  
claimed in claim 16, wherein the tantalum is present in  
the range 25 to 35 weight %.

15 18. A single crystal seed alloy composition  
consisting essentially of:  
nickel; and,  
tantalum in the proportion of 25 to 35 weight %,  
wherein the alloy composition has a solidification  
20 temperature which is not less than 1300°C and not  
greater than 1400°C, and a solidification temperature  
range which is not greater than 20C°.